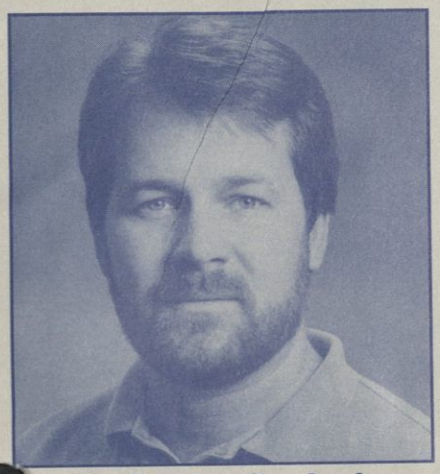
Aftermath

Vol. 10, Num. 2 The East Texas State University Mathematics Department Newsletter Fall 1995

Mathematics Department Hires Five New Faculty



Dr. Bartley Goodard

Bart was born and raised in the small farming community of Imperial, Nebraska. He attended the Massachusetts Institute of Technology for three years and the University of Nebraska at Lincoln for 6 years. He earned a Ph.D. in Mathematics, specializing in Analytic Number Theory, under Dr. Walter E. Mientka in December of 1989. The title of his dissertation was A Finite Dirichlet Series Related to Newman Polynomials, which holds the all-time, all-field record for shortest dissertation at the University of Nebraska. From August 1990 to May 1995, he held an assistant professorship at Rose-Hulman Institute of Technology in Terre Haute, Indiana. During his tenure there, he was active in introducing computer algebra systems into undergraduate mathematics education. He was co-author of two grants, the purpose of which was to introduce computer algebra systems into high school mathematics curricula. He published a wide variety of works, including a paper in the Proceedings of the American Mathematical Society, a handbook for a number theory textbook, a reference manual for calculus students using the computer algebra system Mathematica and numerous articles or parts of articles which pose and solve problems for high school and undergraduate mathematicians. Ongoing professional interests include continued research in the behavior of exponential sums and Newman polynomials and in the solutions of systems of Diophantine equations. He has a passionate interest in being involved in the introduction of computer algebra systems into the mathematics and education curricula at ETSU. Each December he attends the Western Number Theory Conference in California, which he organized in 1993. He referees and edits problems and solutions for the Mathematical Association of America's Mathematical Monthly, he referees papers and books for a number of journals and publishers, and he is a member of Sigma Xi and the MAA. Bart and his wife Susan have a son Zach, 14 and a daughter Liz, 10. They are members of Trinity Lutheran Church, LCMS. They enjoy volleyball, music, martial arts and snow.

Dr. Daniel Heath

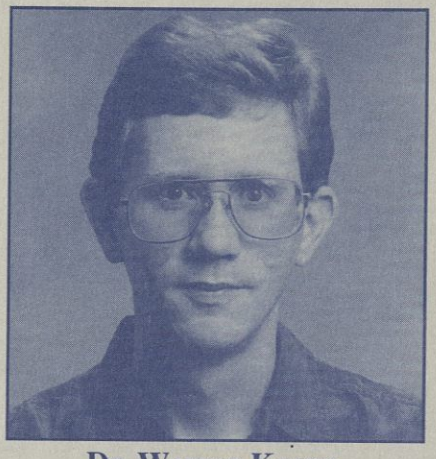
Daniel Heath, or "Deej," as he likes to be called, was born and raised in the upper Midwest, mostly in the Minnesota area. After graduating from high school in Appleton, Wisconsin, he entered St. Olaf's College in Northfield, Minnesota. After considering several majors including chemistry, religion, linguistics and music, he finally chose mathematics. As part of his studies in mathematics, he spent a semester in Budapest, Hungary, where he fueled his interest in religion, linguistics and music as well.

After graduating from St. Olaf's, Deej taught English in Japan for six months for the Japanese Christian Church. During this time he decided that he really wanted to become a teacher but also realized that he couldn't keep away from the interesting challenge which mathematics offered. He soon afterward entered the University of California at Davis where he got his M.A. and Ph.D.

During his graduate work, he often travelled back to Japan, and

he returned there for nearly one and a half years of post doctoral work before coming to East Texas State University.

Deej enjoys many hobbies including drawing, goldsmithing, squash, singing, backpacking and model railroading just to name a few.



Dr. Warren Koepp

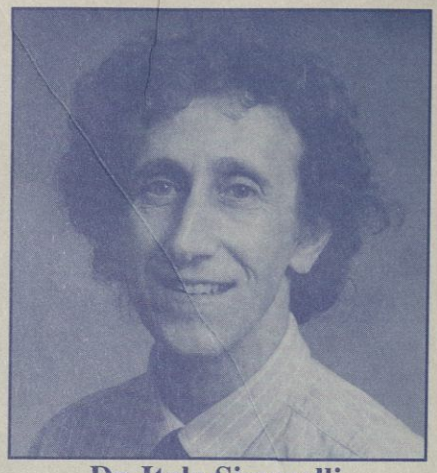
Having never before written an autobiography (at least not in this life), I suppose I should just hit the high points. I was born in Austin, and after a brief sojourn in NYC, my dad joined the National Park Service. I grew up in the places that the rest of you can only visit, eventually landing in West Texas. Following my valedictory address at Van Horn High School in 1983, I entered Texas Tech University. After three years as a resident assistant (and reams of scrap paper sacrificed on the twin altars of Mathematics and Physics), I was awarded the BS degree (summa cum laude) in 1987.

I married Kelly Hubbard two weeks before finals, and after graduation we made our way to Albuquerque for a 3-month stint at Sandia National Laboratories where I learned to play hacky sack and catch laser beams. Then we moved to Madison, Wisconsin for graduate school. Madison is pretty when you arrive in the late summer. Then they take your money, kill the grass, denude the trees, and freeze the lakes solid for 6 months. All in all we had a good time there, learning lots (each of us earned two degrees from UW-Madison).

I worked up to being able to juggle five balls. We had two kids (Beth and R. Fred) and then, luckily, I graduated. My field of expertise in those eight years became abstract algebra, so if you ever need to know anything about infinite-dimensional Lie algebras, I can say "I dunno" better than almost anyone else.

I defended my dissertation on June 20; turned it in on June 28; loaded a truck on July 4; and arrived in Commerce on July 7, 1995, at 4:30 p.m. Summer teaching began (two classes) on Monday, July 10.

I have left out a lot, but then there is always room for a sequel. If you are ever in the neighborhood, just bring your clubs and say "fast start, every others." If you get something other than a dumb look, you've probably found me.



Dr. Italo Simonelli

Italo Simonelli is originally from Perugia, a small town in Italy (between Roma and Firenze). He took his undergraduate and graduate studies at Temple University, Philadelphia, PA, and received his Ph.D. in 1993, under the supervision of Professor Janos Galambos. His interests are in Probability, Stochastic Processes and Statistics. He also enjoys hiking, camping, travel, sports and spending time with his wife Brenda and daughter Lucia.

Dr. Connie Yarema

Connie Hicks Yarema, the daughter of Roland Gray and Christine Scarborough Hicks, was born May 14, 1951, in Farmerville, Louisiana.

After graduating in 1969 from Farmerville High School as valedictorian and recipient of the Mathematics Award, she attended Northeast Louisiana University. Later she was employed by State Farm Insurance and continued to attend NLU part-time.

In 1975 she resigned from her work and attended NLU full-time. She then met Allan E. Yarema and married in August, 1976. For the next six years, she lived in Dauphin, Manitoba, Canada; Calhoun, Louisiana; and Moose Jaw, Saskatchewan, Canada. Two sons were born in Moose Jaw, Lance in April, 1980, and Reagan in November, 1981.

In 1983 the family moved to Winnsboro, Texas; and in April, 1986, a third son, Kenton, was born. Connie enrolled at East Texas State University in 1988 and received the Bachelor of Science degree in math-

ematics in August, 1990. As a teaching assistant at East Texas State University, she taught mathematics and was awarded the Master of Science in mathematics in May, 1992.

She served as an assistant instructor in the Department of Mathematics and as an adjunct mathematics instructor for Paris Junior College while completing the Doctor of Education degree in Supervision, Curriculum, and Instruction - Higher Education.

Math Department Secretary Wins 1995 Distinguished Member Award

Sue Smith

Sue Smith was chosen to receive the 1995 distinguished member award by UOPA, (University Office Personnel Association). She has been an officer and committee member for many years. She has participated in several local workshops and attended TESA summer workshops. Last fall the Faculty Senate honored her with the Professional Achievement award.

Her words to live by are: "Always do the best you can, that is all anyone can expect of you. Be true to yourself. Take time to smell the roses." She continues to serve UOPA as First Vice President for 1996.

Faculty Activities

Publications

New faculty member **Dr. Bart Goddard** wrote the section on Diophantine Equations in the new CRC Handbook on Discrete and Combinatorial Mathematics which will be published in October, 1995

New faculty member **Dr. Daniel Heath** published an article entitled "Heegaard Splittings of the Figure-8 Knot Complement are Standard" in *Notes From the All Japan Symposium on Knot Theory at Kata*, 1995, pp 38-53 an article entitled "Musubime No Thin Position Nituite," with T. Kobayashi in the *Art of Low Dimensional Topology*, 1995, pp 120-128. He has submitted two articles entitled "A Classification Theorem for Rigid Heegaard Splittings" and "Heegaard Splittings of 1-Edged Manifolds" to the *Osaka Journal*, two articles entitled "Essential Tangle Decomposition from Thin Position of a Link" with T. Kobayashi and "On Classifications of Heegaard Splittings and Triangulations" to the *Pacific Journal of Mathematics*. and an article entitled "On Haken's Algorithm and Immersed Surfaces" to the *Kobe Journal of Mathematics*.

Reservations for Homecoming Breakfast and "25 and Counting" Book Order From

Name: _____

Address: _____

City, State & Zip: _____

Phone: ( ) _____

Please Reserve _____ places at the Homecoming Alumni Breakfast on October 28, 1995 in the Bluebonnet-Pecan-Friendship Room of the MSC @ $6.00 each.

Enclosed: $ _____

Please send _____ copies of "25 and Counting" at $14.95 each plus $1.23 sales tax plus either $2.16 for first class postage or $1.24 for book rate postage to me at the above address.

Enclosed: _____

Total Ecnlosed: _____

Dr. Connie Yarema was solicited by the *Mathematics Education Encyclopedia* to write an article entitled "Curriculum Reform at the University: Calculus and Teacher Preparation" which has now been accepted for publication.

Another article by **Dr. Yarema**, **Jean Jones** and **Robert Windham** entitled "Offer Them a Carrot: Linking Motivation to Assessment" has been accepted for publication as well.

Meetings Attended

The annual meeting of the Texas Section of the MAA in April, 1995 at Baylor University was attended by **Stuart Anderson, Bill Aslan, Dale Bedgood, John Davenport, Charlie Jones, Rick Kreminski, John Lamb, Jr., Heidi Staebler, Vance Underhill and Connie Yarema.**

Dr. Stuart Anderson attended the Joint Policy Board for Mathematics meeting at Texas A&M University on June 16, 1995. It was attended by department chairs from a four-state region and was supported by the National Science Foundation.

Dr. Bart Goddard attended the Western Number Theory Conference in San Diego, CA in December, 1994.

Dr. Daniel Heath attended the "All Japan Symposium on Knot Theory at Kata" in October, 1994, the "Atami Foliations Symposium" in October, 1994, "The Art of Low Dimensional Topology" in November, 1994, the "Three-dimensional Manifold Theory Symposium" at Tokyo Industrial Univeristy in December, 1994, the "Three-Manifold Simplicial Decomposition Symposium" at Nara Women's University in January, 1995 and the "Georgia Topology Conference" in August, 1995.

New faculty member **Dr. Warren Koepp** attended the 47th annual Madfest Juggling Convention in Madison, WI in January, 1995. He also attended the Mondo Jugglefest at the University of Minnesota.

Dr. Rick Kreminski attended the Texas Topology and Geometry Conference at Texas A&M in November, 1994 and Rice University in April, 1995 and the annual MAA/AMS meeting in San Francisco in January, 1995.

Ms. Heidi Staebler received a Faculty Development grant to attend the American Mathematical Association of Two-Year Colleges National Conference in Tulsa, OK. She attended a workshop by Don LaTorrre on the new business calculus she used in the spring term of 1995 entitled *Calculus Concepts: An Informal Approach to the Mathematics of Change*. She also attended a Supplementary Instruction (SI) Supervisor Training Workshop in Kansas City, MO in February.

Dr. Connie Yarema attended a meeting entitled Mathematicis and Education Reform in Baton Rouge in November, 1994. She attended the joint meeting of the MAA/AMS in San Francisco in January, 1995. She attended the "Discrete Math Institute" in Lincoln, Neb. in July, 1995. And she attended a meeting entitled "Professors Rethinking Options in Mathematics for Prospective Mathematics Teachers" in Arcata, CA in August, 1995.

Papers Presented

Dr. Bill Aslan presented a paper at the annual meeting of the Texas Section of the MAA entitled "A Statistical Analysis of the Pick 3 Texas Lottery." He and **Dr. John Lamb, Jr.** co-authored the paper.

Dr. Warren Koepp presented a paper entitled "Simple Homogeneous Subalgebras of Generalized Witt Algebras" at the University of Wisconsin at Madison in June, 1995. He also presented a paper entitled "Musings on Linear Algebras" at Sul Ross State University in April, 1995.

Dr. Rick Kreminski presented a paper at the annual meeting of the Texas Section of the MAA entitled "Accelerating Convergence."

Dr. John Lamb, Jr. presented a paper at the same meeting entitled "An Analysis of the Drift of Impact Sites on Jupiter Made by Comet Shoemaker-Levi." He also presented a slide show of pictures taken of the comet impact sites on Jupiter by the Galileo spacecraft, the Hubble Space Telescope and several telescopes on Earth.

Ms. Heidi Staebler presented two talks at the same meeting entitled "Math Awareness Week: Ideas for Activism" and " Business Calculus with Emphasis on Modeling: A Fresh New Approach."

Dr. Connie Yarema presented two papers at the same meeting entitled "University Professor in the Elementary Classroom" and "Calculus Reform and Alternative Assessment."

Other Activities

Dr. Stuart Anderson is president of the Texas Section of the MAA for 1995-96.

Dr. Bill Aslan served as Program Chairman for the annual TACT banquet.

Drs. Dale Bedgood and John Lamb, Jr. were honored twice during the Spring, 1995 term. They each received distinguished service awards at the annual banquet of the Texas Section of the MAA in April and they received certificates of merit for outstanding teaching careers at ETSU from the local chapter of TACT at its annual banquet in May. They are now retired and on VME at ETSU for at least the 1995-96 school year.

Dr. Bart Goddard has referreed and edited problems for the MAA Monthly, referreed articles for the Fibonacci Quarterly and was invited to the University of Calagry (Alberta) to work with **Richard Mollin** and **John Burke** on number theory in July, 1995. It was funded by **Dr. Mollin's** grant.

Mr. John Heath served as director of the UIL Region II-AAA Number Sense Contest for the twelfth consecutive year.

Dr. Warren Koepp is a member of the International Jugglers Association. He performed three juggling shows as half of "Passing Gas at the Walleye Weekend" festival in Fond du Lac, WI in June, 1995.

Dr. Rick Kreminski presented two talks at the North Texas Relativity Seminar at UT-Dallas in February, 1995. He also gave a talk at Stephen F. Austin State University on Fermat's Last Theorem in November, 1994.

Dr. John Lamb, Jr. and the ETSU Model Rocket Society organized and presented a program on July 20, 1995 to commemorate the 26th anniversary of the first manned moon landing, the 19th anniversary of the Viking robot landing on Mars and the first anniversary of the Jupiter-Comet Shoemaker-Levi 9 collision. The program included the launch of a space shuttle model rocket while a real orbiter was on orbit overhead.

Dr. Connie Yarema conducted a content workshop for middle school teachers in the Cooper ISD in June, an inservice program for teachers of K-4 at Austin Elementary School in Sulphur Springs in October, 1994, an inservice program for Hunt County teachers in the Northeast Texas Educational Partnership at ETSU in October, 1994. She taught a third grade class for the Commerce Elementary School in December, 1994 and an eighth grade class for the Commerce Middle School in March, 1995.

Five ETSU Math Students Participate In Putnam Exam

On Saturday, December 3, 1994, five ETSU students participated in the 55th annual Putnam exam. This six-hour-long test has only 12 problems, yet to get 2 problems correct places the student in the upper fifth of the country. (More than a quarter of the participants nationally received a score of ZERO.) This was the third year in a row that ETSU fielded a team of three, and as usual we had a positive team score. By late October we should have the 1995 team assembled. Sample questions appeared in the Spring newsletter. Here is a question from our Math Awareness Week puzzle page: In the sequence 1,9,9,5,4,7,5,1,7,0,3, 1, . . . each number beginning with the fifth is the last digit of the sum of the previous four. Does the succession 1,9,9,5 ever occur again? How about the sequence 1,2,3,4; does it ever appear?

ETSU Test Site for New Business Calculus Text

During the spring 1995 semester Heidi Staebler taught one section of Math 176 using the manuscript of a new "business calculus" text: Calculus Concepts: An Informal Approach to the Mathematics of Change, La Torre, Kenelly, et al. Written by several authors at Clemson University under a grant from the Fund[illegible] the Improvement of Postsecondary Educat[illegible] (FIPSE), U.S. Department of Education, the text presents a unique data driven, technology based, modeling approach to learning the basic concepts of calculus. By making use of Texas Instrument T.I.-82 graphing calculators, students were able to answer pertinent "real-world" questions involving calculus with much less algebraic manipulation than has traditionally been emphasized in business calculus. In addition, students gained practical experience in working with others and in communicating technical ideas, since a group modeling project involving a written paper and oral presentation was a major component of the course. Feedback from students and the business department regarding this approach was quite positive and Ms. Staebler is teaching two sections of Math 176 out of the preliminary edition of the text during the fall 1995 semester.

Book of Publications By John Lamb, Jr. Still Available

The book entitled *25 and Counting* containing publications of Dr. John Lamb, Jr. is still available. It is dedicated to the memory of William Weldon "Bub" Taylor and contains stories he used to tell, puzzles he liked to solve, etc. The proceeds are being donated to the Bub Taylor Scholarship Fund. Alumni may order copies of the book using the form located elsewhere in this newsletter. Dr. Lamb will be at the homecoming breakfast with books to sell and autograph.

Ninth Annual Homecoming Alumni Breakfast Scheduled

The ninth annual Homecoming Mathematics Alumni Breakfast will be held at 9:00 a.m., Saturday, October 28, 1995 in the Bluebonnet-Pecan-Friendship rooms in the Sam Rayburn Memorial Student Center. Several scholarships will be awarded and alumni recognized. This year, you will have the unique opportunity to meet the five new faculty members and visit with recently retired faculty members. Please send your breakfast reservations in by October 20, 1995. If you cannot attend, please take the time to fill out [illegible] return the form so we can accurately update our alumni files.

Mathematics Awareness Week 1995 Activities

Mathematics Awareness Week for 1995 was April 23-29 and featured the theme Mathematics and Symmetry. Activities included a math video film-fest, a raffle (but participants had to solve a problem correctly before entering!), and a problem solving competition, all of which were open to the entire ETSU community—except math faculty weren't eligible for the prizes, which were donated by local businesses and included savings bonds and restaurant meals. Area schools were also involved in an art competition; their charge was to convey the concept of symmetry in an artistic way. In addition, two recent alumni, Ken Grantham and Ron Williamson, gave a talk detailing their experiences teaching in Dallas area high schools.

Math Club News

The Mathematics Clubs' outstanding achievement last year was raising and donating $800 to the Dennis P. Grantham Scholarship Fund. This was done through operating a carnival booth, a used-book sale, and sale of some valentine candy made by club members themselves. A new faculty member, Ted Mahavier, was our spring banquet speaker. The officers of these clubs were listed in the spring issue of *AFTERMATH*. Our officers for the current year will be Darlene Austin and Erika Wilson, Pi Mu Epsilon president and vice-president; Martha J. Kuhl and Kenneth Willia MAA(Student Chapter) president and vice-presid Ronald R. Layton, AGA president; and William Corcoran, treasurer of all three clubs. We have been blessed with some great student leaders over the past few years and we are looking forward to another fruitful year.

Sports Activities

The Irrationals are still fielding basketball and softball teams, although it is getting to the point where success is measured in terms of having enough people to field a team, rather than winning or losing . . . but we still feel like it is more fun to win! James McBride, a math graduate student, and Joe Lohn, returning to us after teaching in Arizona, were new faces on this year's teams. Our softball schedule was marred by some bad weather and numerous commitments to faculty searches. John Heath, the team's manager, is to blame for the team missing its first play-off game, forgetting to check with the intramural office before he drove a job applicant back to the airport. He will no doubt be put on probation for the next season!

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